

AMENDMENTS TO THE CLAIMS

(IN REVISED FORMAT COMPLIANT WITH THE PROPOSED

REVISION TO 37 CFR 1.121)

ai sub B1 1. (CURRENTLY AMENDED) An apparatus comprising:  
a first circuit configured to generate a reference output  
voltage in response to a plurality of reference voltages; and  
a second circuit configured to generate an output voltage  
5 in response to a comparison between said reference output voltage  
and an unknown voltage, wherein said output voltage comprises  
accurately controlled hysteresis.

2. (ORIGINAL) The apparatus according to claim 1,  
wherein said first circuit comprises a voltage generator circuit  
and said second circuit comprises a comparator.

3. (ORIGINAL) The apparatus according to claim 1,  
wherein first circuit is configured to switch between said  
plurality of reference voltages.

4. (ORIGINAL) The apparatus according to claim 3,  
wherein said first circuit is further configured in response to a  
feedback signal.

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5. (ORIGINAL) The apparatus according to claim 4,  
wherein said feedback signal comprises said output voltage.

6. (CURRENTLY AMENDED) The apparatus according to claim  
1, wherein said first circuit is further configured ~~in response~~ to  
provide substantial immunity against voltage, process and  
temperature variations.

7. (ORIGINAL) The apparatus according to claim 1,  
wherein said first circuit comprises:

a bandgap reference circuit;

5 a voltage reference circuit configured to generate said  
plurality of reference voltages; and

a reference switch circuit configured to switch between  
said plurality of reference voltages to generate said output  
voltage.

8. (ORIGINAL) The apparatus according to claim 7,  
wherein said bandgap reference circuit comprises:

a process/compensation circuit;

a reference circuit; and

5 a summation circuit configured to control said voltage  
reference circuit in response to signals from said process  
compensation circuit and said reference circuit.

9. (ORIGINAL) The apparatus according to claim 7,  
wherein said voltage reference circuit comprises:

a plurality of current sources configured to generate  
said plurality of reference voltages; and

a plurality of resistors each coupled to at least one of  
said plurality of current sources.

10. (ORIGINAL) The apparatus according to claim 7,  
wherein said reference switch circuit comprises:

a plurality of switches each (i) configured to receive at  
least one of said plurality of reference voltages and (ii) coupled  
5 to said reference output voltage.

11. (ORIGINAL) The apparatus according to claim 10,  
wherein said plurality of switches are configured in response to  
said output voltage.

12. (ORIGINAL) The apparatus according to claim 1,  
wherein said plurality of reference voltages comprise bandgap  
controlled voltages.

13. (CURRENTLY AMENDED) An apparatus comprising:  
means for generating a reference output voltage in  
response to a plurality of reference voltages; and

5  
means for generating an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises accurately controlled hysteresis.

14. (CURRENTLY AMENDED) A method for providing accurate and controlled hysteresis comprising the steps of:

(A) selecting a reference output voltage from a plurality of reference voltages; and

5. (B) generating an output voltage in response to a comparison between said reference output voltage and an unknown voltage, wherein said output voltage comprises accurately controlled hysteresis.

15. (ORIGINAL) The method according to claim 14, wherein step (A) further comprises:

switching between said plurality of reference voltages.

16. (ORIGINAL) The method according to claim 14, wherein step (A) further comprises:

controlling a voltage level of said plurality of reference voltages.

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*Contd.* 17. (ORIGINAL) The method according to claim 14, wherein  
step (A) is further responsive to a feedback signal.

18. (ORIGINAL) The method according to claim 17, wherein  
said feedback signal comprises said output voltage.

19. (ORIGINAL) The method according to claim 14, wherein  
step (B) is further responsive to voltage and temperature  
variations.

20. (ORIGINAL) The method according to claim 14, wherein  
step (A) further comprises the sub-steps of:

(A-1) summing a positive temperature coefficient and  
a negative temperature coefficient; and

5 (A-2) controlling a voltage level of said plurality  
of reference voltages.

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Please add the following new claim:

*Q2* 21. (NEW) The apparatus according to claim 1, wherein  
said first circuit includes a summation circuit configured to  
control a voltage reference circuit in response to signals from a  
process compensation circuit and a reference circuit.